



# BioDefense 24/7™

Vehicle Nano-Sealer – Improve Fuel Economy, Reduce Corrosion, Reduce Heat Transfer



Your Source for a Safer, Healthier Environment®

## Product Info

**BioDefense 24/7™** will reduce vehicle drag improving fuel savings and reducing soiling on surfaces. Vehicles protected with **BioDefense 24/7™** will be easier to clean and maintain resulting in an immediate return on investment. Vehicle corrosion is mitigated, while the life of the surface will be extended resulting in a long-term return on investment. Designed with additional rust and corrosion resistant components for use on metals and all surfaces in the most extreme atmospheres, such as high altitude, high temperature, caustic, or acidic conditions.

**DevMar®** has successfully combined two emerging technologies to address multiple problems of surface protection against corrosion, soil adhesion, atmospheric fouling, abrasion, static, and UV degradation with “liquid nano-metal” penetrating sealing. Employing a proprietary water-based fusion of nanotechnology-sized polymeric particulates, **BioDefense 24/7™** protectant works on all hard and soft surfaces to seal, protect, enhance the appearance, and extend asset life. **BioDefense 24/7™** also utilizes nano-metal oxides to densify and strengthen surfaces without hardening to further enhance UV protection and surface protection.

## Where to Use

Used on vehicle interiors on dashboards, door panels, windshields, windows, and headliners to protect those surfaces against soil adhesion, UV degradation, atmospheric pollutants adhesion, and wear. The PCO (Photo Catalytic Oxidization) technology qualities of **BioDefense 24/7™** will greatly improve the truck cabin environment thus helping the driver’s health.

Used on vehicle exteriors to reduce drag and acts as a sunscreen to reduce heat radiation through the trailer skin thus reducing the load on the cooling compressors.

Versatile on many different hard and soft surfaces including but not limited to metals, fiberglass, wood, tile, natural stone, glass, stainless steel, ceramic, plastics, aluminum, clear coats, painted surfaces, steel, concrete, masonry, stone, composites, ABS, polycarbonate, styrene, acrylics, grout, Plexiglass, and many more.

## Benefits

- An Estimated yearly savings of **\$2,500**.
- On average commercial trucks consume 20,500 gallons of fuel per year. Diesel fuel cost of \$5.50 \* 20,500 = \$112,750 **BioDefense 24/7™** can improve fuel savings by 1% or **\$1,127.50** per truck.
  - FAA wind tunnel test proves surfaces treated with **BioDefense 24/7™** reduces drag at highway speeds by more than 14%.
  - ATA / DOE semi-truck drag reduction test shows a 2% reduction in aerodynamic drag resulting in 1% fuel savings.
- Reduced washing can save **\$1,430** per truck. Washing truck at \$75 every 2 weeks = \$1,950. After applying **BioDefense 24/7™**, the potential cleaning reduction goes down to rinsing the truck at \$40 every 4 weeks = \$520.
  - Trucks treated with **BioDefense 24/7™** require fewer washes, fewer cleaning chemicals, and rinsing with less effort while protecting your surfaces.
- Reduce the cost of replacing truck parts due to corrosion.
- Improved appearance.
- Improving protection from heat radiation through the trailer skin and reducing the load cooling compressors cost.
- Improved protection against salt on or underside of vehicles.
- Snow removal is quick and easy.

<b>Appearance:</b> White liquid
<b>Fragrance:</b>
<b>pH:</b> 7.0-8.0
<b>Flash Point:</b> Same as Water
<b>Storage:</b> Between 40° F and 110° F
<b>Compliance:</b> Full VOC Non-pollutant for air, water, soil

## Features

- Water-based
- Non-flammable
- Non-toxic
- Non-abrasive
- Does not affect pH
- Does not etch surfaces
- Does not add weight or dimension
- Does not contain silicones, PTFE’s, oils, waxes
- NO VOC’s
- Viable to 350 degrees C
- Does not harden
- Enhances shine and matte finishes
- 100% soluble in water
- Ozone safe

## Confirmed Testing

### Passes or exceeds the industry standard for:

Boeing D6-17487: (Exterior and General Cleaners and Liquid Waxes, Polishes, and Polishing Compounds)  
Boeing D6-7127: (Cleaning Interiors of Commercial Transport Aircraft)  
Douglas CSD #1: (Materials and Procedures for Polishing Aluminum Surfaces)  
Aerospace Materials Specification (AMS) 1650C: (Polish, Aircraft Metal Type 1: Liquid)  
ASTM B117: (salt spray corrosion 500+ hours)  
ASTM F1110: (aviation sandwich corrosion)  
ASTM F483: (aviation immersion corrosion)  
ASTM F519-93: (hydrogen embrittlement)  
ATM F519, Type 1c: (hydrogen embrittlement)  
ASTM F485: (no stain/residue test)  
ASTM F502: (acrylic crazing)  
ASTM F484: (stress crazing on acrylic to 4500 psi)  
ASTM D56: (flash point 140 deg. limit) Passes

## Use Instructions

Always refer to SDS and product label prior to use. Do not use and/or combine with other chemicals. **BioDefense 24/7™** is ready-to-use and does not need to be diluted.

### Thoroughly clean surfaces

- Apply sealer to dry surface with fine-mist sprayer and gentry spread with a soft cloth.
- Allow drying for 5-10 minutes.
- Buff with a soft cloth.

### Tips

- One-gallon seals approximately 3,000 sq ft for hard surfaces and 1,500 sq ft for soft surfaces
- For large applications, spray with a backpack sprayer or another fine mist applicator
- For the first application, apply two coats
- When significant buildup, media-blast surface or use other mechanical methods

### Warning

As with all cleaning and sealing products use protective wear (gloves and goggles to avoid skin and eye contact).